*Forest Ecology and Management*, 40 (1991) 333–334
Elsevier Science Publishers B.V., Amsterdam



# Contents of *Forest Ecology and Management*, Volume 40

VOL. 40 NOS. 1,2 10 MAY 1991

Improved cubic volume prediction using a new measure of form factor
K.P. Rustagi and R.S. Loveless, Jr. (Seattle, WA, U.S.A.) ..... 1
Fifty-year biogeochemical effects of green ash, white pine, and Norway spruce in a replicated experiment
D. Binkley and D. Valentine (Ft. Collins, CO, U.S.A.) ..... 13
Screening for salt and waterlogging tolerance in *Eucalyptus* and *Melaleuca* species
P.G. van der Moezel, G.V.N. Pearce-Pinto and D.T. Bell (Nedlands, W.A., Australia) ..... 27
Wood-density variation of young plantation-grown *Eucalyptus grandis* in response to silvicultural treatments
A.P. Wilkins and R. Horne (Beecroft, N.S.W., Australia) ..... 39
Water management of transplanted seedlings of *Azadirachta indica* in arid areas
U. Burman, S. Kathju, B.K. Garg and A.N. Lahiri (Jodhpur, India) ..... 51
Long-term implication for streamflow of changes in vegetation cover and stand height in regenerating karri stands in south-Western Australia
H. Borg (Leederville, W.A., Australia) and G.L. Stoneman (Dwellingup, W.A., Australia) ... 65
Methodology for predicting species diversity in managed forests
B.F. Swindel, J.E. Smith (Gainesville, FL, U.S.A.) and R.C. Abt (Raleigh, NC, U.S.A.) ..... 75
Carry-over effects of trunk-implanted acephate for protecting Douglas fir from western-spruce-budworm defoliation
R.E. Sandquist (Portland, OR, U.S.A.) and V.J. Erickson (Pendleton, OR, U.S.A.) ..... 87
Genotype × environment interaction in pine hybrid families at four sites in South Africa
J.A. Wright, M.J.P. Shaw and W. Hadebe (Howick, South Africa) ..... 93
Recharge beneath a Banksia woodland and a *Pinus pinaster* plantation on coastal deep sands in south Western Australia
P. Farrington and G.A. Bartle (Wembley, W.A., Australia) ..... 101
Nutrient status of bracken (*Pteridium aquilinum*) following whole-tree harvesting in Upper Michigan
K.A. Lederle and G.D. Mroz (Houghton, MI, U.S.A.) ..... 119
Volume growth relationships within mixed black-spruce/balsam-fir stands
P.F. Newton (St. John's, Nfld., Canada) and V.G. Smith (Toronto, Ont., Canada) ..... 131
Comparison of pH, sulfate and nitrate in throughfall and stemflow in yellow-poplar and oak stands in north-central West Virginia
S.J. Tajchman, R.N. Keys and S.R. Kosuri (Morgantown, WV, U.S.A.) ..... 137

**Short communication**

Conservation of forest gene resources as related to sample size
D. Krusche and Th. Geburek (Grosshansdorf, Germany) ..... 145

VOL. 40 NO. 3,4 31 MAY 1991

Effects of accelerated pollen-cone development on pollen cytology and fertilizing potential in western Hemlock (*Tsuga heterophylla*)
A.M. Colangeli and J.N. Owens (Victoria, B.C., Canada) ..... 151
Seasofnality in rooting of *prosopis chilensis* cuttings and in-vitro micropropagation
P. Arce (Santiago, Chile) and O. Balboa (Santa Rosa, Argentina) ..... 163
Biomass response mechanisms of understory species the first year after prescribed burning in an Arizona ponderosa-pine community
J.M. Vose (Otta, NC, USA) and A.S. White (Orono, ME, USA) ..... 175
Three-year growth studies of *Leucaena leucocephala* (1094) and *L. pulverulenta* (1001) at twof spacing sin Texas
G.N. Gathaara (nairobi, Kenya) E.L. Glumac (houston, TX, USA) and P. Felker (Kingsville, TX, USA) ..... 189
Soil-solution chemistry in black locust, pine/mixed-hardwoods and oak/hickory forest stands in the southern Appalachians, USA
F. Montagini, B. Hanes (Athens, GA USA) and W.T. Swank (Otto, NC, USA) ..... 199
Nitrogen mineralization in irrigated plantations of shisham and mulberry
Z. Javid and (Gatala-Faisalated, Pakistan) and R.F. Fisher (Logan, UT, USA) ..... 209
Soil acidification under the crown of oak trees I. Spakjtial distribution
F. Beniamino, J.F. Ponge and P. Arpin (Brunoy, France) ..... 221
A financial analysis of forest land use in bendel, Nigeria
G.J. Osemeobo (Abuja, Nigeria) ..... 233
Relationships between crown projected area and components of above-ground biomass in Norway spruce trees in even-aged standsa: Empirical results and their interpretation
T. Kuulavainen (Joensuu, Finalnd) ..... 243
Promotion of cone production in potted black-spruce grafts, using gibberellins, heat-treatment and root-pruning
R.H. Ho (Guelph, Ont., Canada) ..... 261
Effect of treatment using nuclear polyhedrosis virus on *Lymantria dispar* in field experiments in central Slovakia
J. Novcotný (Banská Štiavmica, Czechoslovakia) ..... 271
Use of principal-coordinate analysis to assist in aggregating species for volumetable construction
J.W. Leech (Mont Gambler, Australia), R.L. Correll (Adelaide, Australia) and A.K. Myint (Yangon, Myammer) ..... 279
Characteristics of hollow-bearing trees occupied by arboreal marsuprials in the montane ash forests of the Central Highlands of Victoria, south-east Australia
jD.B. Lindemayer, R.B. Cunningham, M.T. Tanton (Canberra, A.C.T., Australia), A.P. Smith (Armidale, N.S.W., Australia) and H.A. Nix (Canberra, A.C.T., Australia) ..... 289

**Book Reviews**
Meteorology and agroforestrey ..... 309
Silvicultural systems ..... 310
Tropical rain forest ecosystems: biogeographical and ecological studies ..... 311
Biologic markers of air-pollution stress and damage in forests ..... 315
Air pollution toll on frests and crops ..... 316
Forest dyfnamics. SILVI-STAR: a comprehensive monitoring system ..... 317
The theory and application of forest economics ..... 319

**Announcements** ..... 323

**Author Index** ..... 325

**Subject Index** ..... 329

**Contents of *Forest Ecology and Management*, Volume 40** ..... 333